Browsing Classes 14

This chapter shows you how to use the Class Browser—a tool that displays all the classes defined in your project as a tree chart. You can use the Class Browser to look at the declaration of classes or to find the definitions of methods.

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Using the Class Browser

To use the Class Browser, choose the **Browser** command from the **Source** menu. The Class Browser is shown in Figure 14-1.

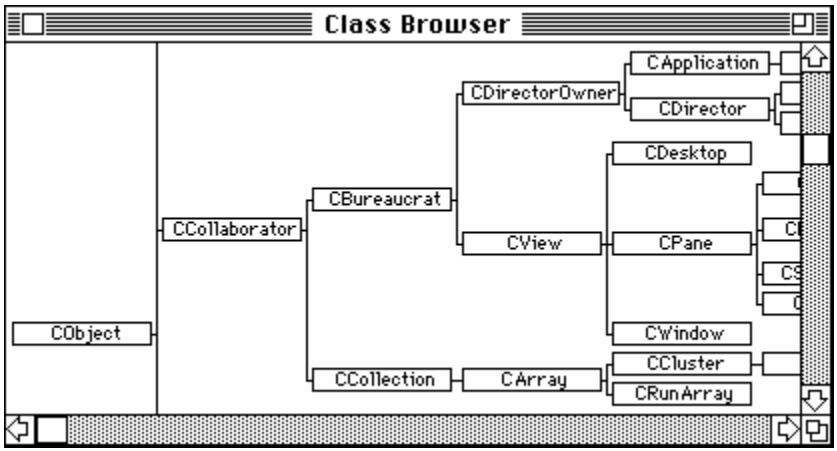

Figure 14-1 The Class Browser window

The boxes represent the class hierarchy of the classes in your project. Each box represents one class. Subclasses are connected to their superclasses like an organizational chart.

In this picture, you can see that the classes CDesktop, CPane, and CWindow are all descendants of CView.

Finding the Declaration of a Class

You can find a class declaration in two ways: with the Class Browser or with the editor.

Finding a class declaration with the Class Browser

To find the declaration of a class, double-click the box that represents the class. The editor opens the file containing the class declaration and scrolls to the declaration of the class.

For example, to see the declaration of the CBureaucrat class, double-click the CBureaucrat box. The editor opens the file

CBureaucrat.h and scrolls to the declaration of CBureaucrat, as shown in Figure 14-2.

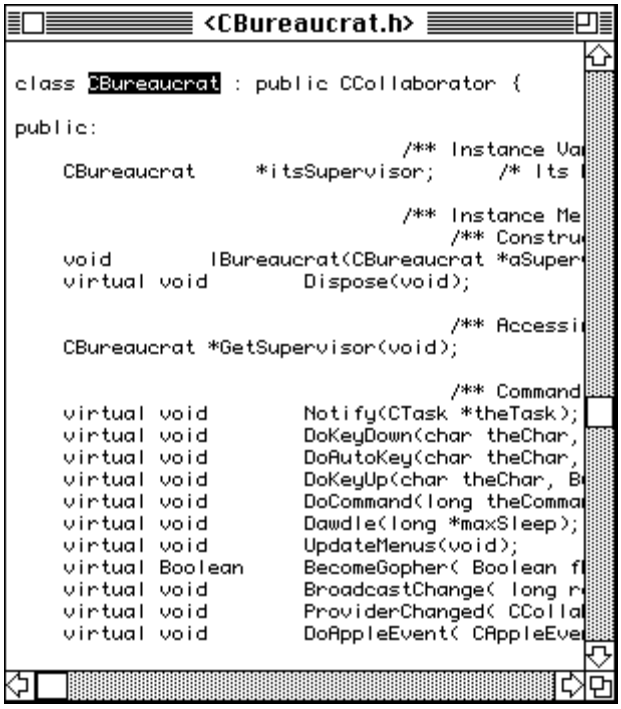

Figure 14-2 The declaration of CBureaucrat

Finding a class declaration with the editor

You can find the declaration of a class in the editor the same way you find the definition of function. Hold down the Option key as you double-click the name of a class, and the editor opens the file that declares that class.

For example, if you're looking at the CEditPane::IEditPane method, and you want to see the declaration of the CBureaucrat class, you can Option-double-click the name CBureaucrat in the parameter list.

Finding the Definition of a Method

You can find the definition of a method in two ways: with the Class Browser or with the editor.

Finding a method definition with the Class Browser

To find all the methods that a class defines or overrides, hold the mouse button down on the class name. A pop-up menu appears next to the class.

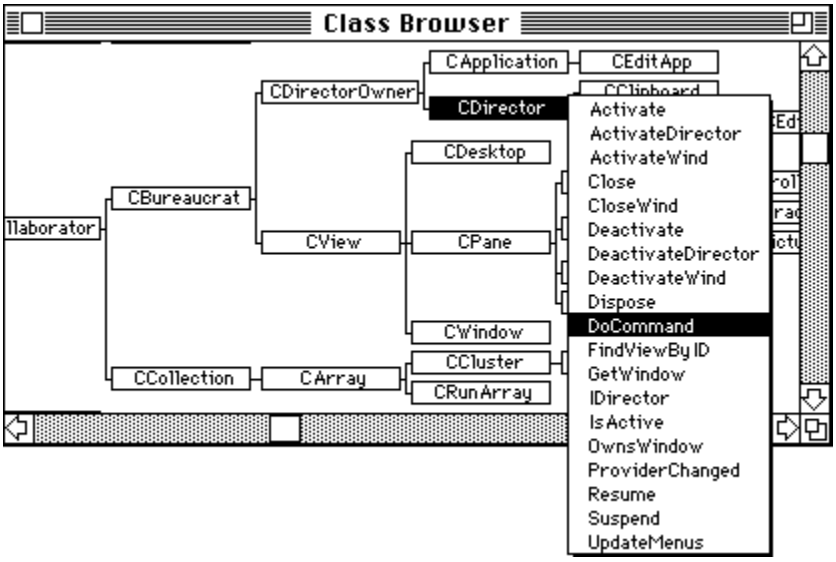

Figure 14-3 The methods of CDirector

If you choose a method from the pop-up menu, the editor opens the file that defines the method.

Note

The pop-up menu shows only the methods that a class defines or overrides. It does not include the methods that the class inherits from its superclass.

Finding a method definition with the editor

You can find the definition of a method from the editor in the same way in which you find the definition of a function. When you hold down the Option key as you double-click the name of a method, the editor opens the file that defines that method and scrolls to the method definition.

Since several classes may define or override the same method, it's not clear which file the editor should open. When a method is defined in more than one class, the editor opens the Class Browser

window and highlights the classes that define the method with a bold border.

For example, suppose that you Option-double-click the method name `ChangeSize` in the `CEditPane::IEditPane` method, as shown in Figure 14-4.

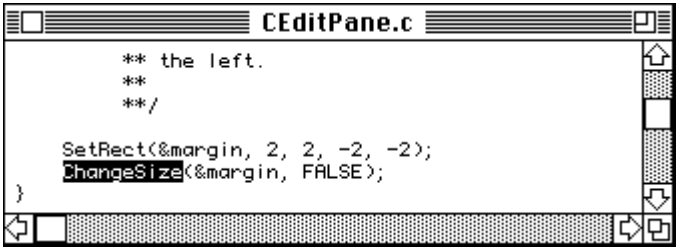

Figure 14-4 Option-double-clicking on the call to the ChangeSize method

Since several classes define the `ChangeSize` method, the THINK Project Manager opens the Class Browser window and highlights the classes that define the method, as shown in Figure 14-5.

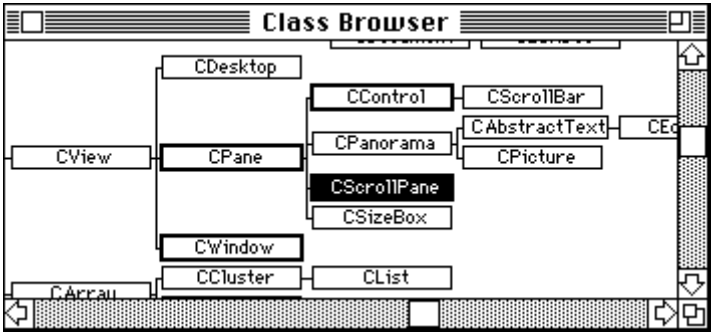

Figure 14-5 The classes that define a ChangeSize method

To see the definition of the method, double-click one of the highlighted classes. The editor opens the file that defines that method.

If you picked the wrong class or you want to see another definition of the method, Option-double-click the method name to display the Class Browser window again.

Keyboard Shortcuts in the Class Browser

You can use the keyboard to navigate through the classes in the Class Browser window. The keyboard commands let you select classes or find definitions of classes without using the mouse.

As you type the name of a class, the Class Browser highlights the class whose name matches what you've typed so far. For instance, as you type `CControl`, the browser highlights CObject, CChore, CCollaborator, and finally CControl.

This is what other keys do in the Class Browser:

Key	Action
Enter or Return	Open the file that contains the definition of the selected class. This is the same as double-clicking a class name.
Up Arrow	Select the previous sibling of the current class.
Down Arrow	Select the next sibling of the current class.
Left Arrow	Select the superclass of the current class.
Right Arrow	Select a subclass of the current class.
Tab	Traverse each class in the class hierarchy.

Table 14-1 Keyboard shortcuts in the Class Browser

Class Browser Summary

This table summarizes how to use the Class Browser:

If you're in the…	And you want to find a…	Do this:
Class Browser	Class declaration	Double-click the class name.
Editor	Class declaration	Option-double-click the class name.
Class Browser	Method definition	Hold down the mouse button to see a pop-up menu of all the methods the class defines or overrides. Choose one of the method names to see its definition.
Editor	Method definition	Option-double-click on the method name. If there is more than one definition, the Class Browser highlights all classes that define the method. Double-click the class name to see the definition of the method.

Table 14-2 Class Browser summary